

### Examiner's Amendment

1. The amendment filed April 14, 2009, is acknowledged and has been entered. Claims 14, 20, 21, 31 and 47 have been amended. Claims 1-13, 16-18, 22, 23, 26-29, and 32-46 have been cancelled. Claims 48-59 have been newly added.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for entry of this examiner's amendment was given by Applicant's Representative, Stephanie Elmer on June 30, 2009.

3. The application has been amended as follows:

In the claims:

The prior set of claims has been replaced by the following set of claims:

1-47. (Canceled)

48. (Currently amended) A method of identifying potentially therapeutic anticancer compounds comprising:

(a) forming a complex with a TRRAIP comprising the amino acid sequence of SEQ ID NO: 1 and [[a]] gambogic acid ~~or gambogic acid-related compound~~ in vitro;

(b) contacting the complex with one or more test compounds;

(c) monitoring the extent to which the one or more test compounds displaces gambogic acid ~~or gambogic acid-related compound~~ remains

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~~associated with the TRRAIP thereby determining whether the one or more from said complex to identify~~ test compounds that bind as strongly or more strongly than gambogic acid ~~or gambogic acid-related compounds to said TRRAIP comprising the amino acid sequence of SEQ ID NO: 1;~~

(d) exposing cultured eukaryotic cancer cells expressing a TRRAIP comprising the amino acid sequence of SEQ ID NO: 1 to a test compound identified in step (c) as binding as strongly or more strongly than gambogic acid to said TRRAIP comprising the amino acid sequence of SEQ ID NO: 1; and

(e) measuring the caspase cascade activity of said cultured eukaryotic cancer cells,

wherein an increase in the caspase cascade activity in said cultured eukaryotic cancer cells in the presence of the test compound as compared to the caspase cascade activity in a different culture of said eukaryotic cancer cells which have not been exposed to a test compound is an indication that the test compound is a potentially therapeutic anticancer compound ~~wherein test compounds that bind as strongly or more strongly than gambogic acid or gambogic acid-related compounds are potentially therapeutic anticancer compounds.~~

49. (Previously presented) The method of claim 48, wherein said monitoring of (c) comprises determining whether said one or more test compounds bind to said TRRAIP in a homogeneous assay.

50. (Previously presented) The method of claim 49, wherein said homogeneous assay is selected from the group consisting of a fluorescence polarization assay and a radioassay.

51. (Previously presented) The method of claim 48, wherein said monitoring of (c) comprises determining whether said one or more test compounds bind to said TRRAIP in a heterogeneous assay.

52. (Previously presented) The method of claim 51, wherein said heterogeneous assay is selected from the group consisting of a fluorescence polarization assay and a radioassay.

53. (Previously presented) The method of claim 48, wherein said TRRAIP comprises a detectable label.

54. (Previously presented) The method of claim 53, wherein said detectable label is selected from the group consisting of a fluorescent label and a radiolabel.

55. (Previously presented) The method of claim 48, wherein said gambogic acid compound has a detectable label wherein in (c) said label is detected.

56. (Previously presented) The method of claim 55, wherein said detectable label is selected from the group consisting of a fluorescent label and a radiolabel.

57-59. (Canceled)

***Examiner's Statement of Reasons for Allowance***

4. The following is an examiner's statement of reasons for allowance:

Written support for the amendments to the claim 48 is found throughout the specification; see e.g., pages 88-100, paragraphs [0168]-[0197] and pages 112-124, paragraphs [0228]-[0251].

The prior art does not teach or fairly suggest methods of identifying potentially therapeutic anticancer compounds comprising:

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(a) forming a complex with a TRRAIP comprising the amino acid sequence of SEQ ID NO: 1 and gambogic acid *in vitro*;

(b) contacting the complex with one or more test compounds;

(c) monitoring the extent to which the one or more test compounds displaces gambogic acid from said complex to identify test compounds that bind as strongly or more strongly than gambogic acid to said TRRAIP comprising the amino acid sequence of SEQ ID NO: 1;

(d) exposing cultured eukaryotic cancer cells expressing a TRRAIP comprising the amino acid sequence of SEQ ID NO: 1 to a test compound identified in step (c) as binding as strongly or more strongly than gambogic acid to said TRRAIP comprising the amino acid sequence of SEQ ID NO: 1; and

(e) measuring the caspase cascade activity of said cultured eukaryotic cancer cells,

wherein an increase in the caspase cascade activity in said cultured eukaryotic cancer cells in the presence of the test compound as compared to the caspase cascade activity in a different culture of said eukaryotic cancer cells which have not been exposed to a test compound is an indication that the test compound is a potentially therapeutic anticancer compound.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**

6. Claims 48-56 have been allowed.

7. Claims 48-56 have been renumbered as claims 1-9, respectively.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad Duffy whose telephone number is (571) 272-9935. The examiner can normally be reached on Monday through Friday 7:00 AM to 4:30 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms can be reached on (571) 272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Respectfully,  
Brad Duffy  
571-272-9935

/Stephen L. Rawlings/  
Primary Examiner, Art Unit 1643

/bd/  
Examiner, Art Unit 1643  
July 1, 2009